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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/866,280	05/25/2001	Seiichi Takeuchi	MAT-8138	4607

7590 08/06/2004

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EXAMINER

PARSONS, CHARLES E

ART UNIT PAPER NUMBER

2613

DATE MAILED: 08/06/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/866,280

Applicant(s)

TAKEUCHI ET AL.

Examiner

Charles E Parsons

Art Unit

2613

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☐ Claim(s) \_\_\_\_ is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____.  |

**DETAILED ACTION**

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zhang in view of Wang.

Claim 1. A digital transmitter-receiver comprising:

a receiving unit for receiving digital data transmitted in accordance with a first transmission protocol; (See Zhang figure 13 item 1302)

a transcoder for converting the received data to data in accordance with a second transmission protocol; and (See Zhang figure 13 item 1306)

a transmitting unit for transmitting output data from said transcoder to a terminal apparatus, (See Zhang figure 13 as well as column 1 lines 32-42 teaching the inherent contents of a channel which includes transmission units.)

wherein said transmitting unit monitors a transmission state and informs said transcoder of the transmission state, (See Zhang column 3 lines 22-26 as well as column 12 lines 62-64)

wherein said transcoder, based on the transmission state, changes and outputs data rate of the digital data. (While Zhang is not specific as to how his transcoder instructed to change data outputs according to the transmission channel, he does teach that the main reason for transcoding is to match data rates of incoming streams with output streams. He further teaches that the transcoding can be done at various layers see figure 5.

Furthermore Wang PN 6434197 clearly teaches that the output rate must be controlled

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and normally is at the output using some form of rate controller see column 5 lines 37-45. Therefore at the invention was made, it would have been obvious to one of ordinary skill in the art to configure the transcoder to output at the necessary data rate motivated by a need to avoid transmission errors or delays.)

Claim 2. The digital transmitter-receiver according to claim 1 further comprising a first switching unit, wherein number of said receiving units is plural, wherein said first switching unit selects the digital data received by said plurality of receiving units, and feeds the digital data to said transcoder. (See Zhang figure 13 item 1302)

Claim 3. The digital transmitter-receiver according to claim 2 further comprising a second switching unit, wherein number of said transmitting units is plural, wherein output from said transcoder is fed into a transmitting unit selected by said second switching unit. (See Zhang figure 13 item 1308)

Claim 4. The digital transmitter-receiver according to claim 2, wherein said first switching unit selects one of said plurality of receiving units responsive to a request of the terminal apparatus. (See Zhang column 19 lines 52-55 implying that the inputs are selected.)

Claim 5. The digital transmitter-receiver according to claim 3, wherein said first switching unit selects one of said plurality of receiving 5 units responsive to a request of the terminal apparatus. (See Zhang figure 13 as well as column 19 lines 52-55 implying that the inputs are selected.)

Claim 6. The digital transmitter-receiver according to claim 3, wherein said second switching unit selects one of said plurality of transmitting units responsive to a request of the terminal apparatus. (See Zhang column 20 lines 1-10)

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Claim 7. The digital transmitter-receiver according to claim 5, wherein said second switching unit selects one of said plurality of transmitting units responsive to a request of the terminal apparatus. (See Zhang figure 13 as well as column 19 lines 52-55 implying that the inputs are selected.)

Claim 8-14: The digital transmitter-receiver according to claim 1, wherein the digital data is a first MPEG transport stream, wherein said transcoder separates a video elementary stream and an audio elementary stream from the MPEG transport stream, reduces data rate of the video elementary stream by at least one of thinning of a picture from the video elementary stream and thinning of a high frequency component of a discrete cosine transform (DCT) coefficient, and outputs a second MPEG transport stream by multiplexing the video elementary stream after the rate reduction and the audio elementary stream. (See Zhang figure 1 item 120 as well as column 6 lines 49-59 as well as figure 5 and column 12 line 32 through column 13 line 27.)

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles E Parsons whose telephone number is 703-305-3862. The examiner can normally be reached on M-TH 7AM to 5 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris Kelley can be reached on 703-305-4856. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.


Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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